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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/730,812	12/08/2003	Yoshiyuki Shimamura	1232-5221	2712
27123	7590	07/25/2005	EXAMINER	
MORGAN & FINNEGAN, L.L.P. 3 WORLD FINANCIAL CENTER NEW YORK, NY 10281-2101			VO, ANH T N	
			ART UNIT	PAPER NUMBER

2861

DATE MAILED: 07/25/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/730,812

Applicant(s)

SHIMAMURA, YOSHIYUKI

Examiner

Anh T.N. Vo

Art Unit

2861

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 11 and 12 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 4-9 is/are rejected.
- 7) ☒ Claim(s) 3 and 10 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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## **DETAILED ACTION**

### ***Priority***

Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Claim Objection***

Claim 7 is objected to because of the following informalities: the word "them" should be deleted, as the term "them" is indefinite. Appropriate correction is required.

## **CLAIM REJECTIONS**

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4-6 and 8-9 are rejected under 35 USC 102 (b) as being anticipated by Nagoshi et al. (US Pat. 4,965,596).

Note: The method steps are inherently taught in the apparatus device/limitations in the rejections as follow:

Nagoshi et al. disclose in Figures 1-6 an ink jet printing apparatus comprising:

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- recovery means (26) for causing ink to be discharged from said recording head (20BK ) for a purpose other than recording;
- a waste ink path (D, D1) that allows the waste ink discharged from the recording head (20BK) by said recovery means (26) to be stored in the waste ink storing member (125BK-2) of an attached ink cartridge (125BK);
- determination means (128BK) for determining a remaining amount of ink in said ink storing member (125BK) and a remaining storable amount of waste ink that can be stored in said waste ink storing member (125BK-2) (Figure 2);
- changing means (100) for changing display on state of use of said ink cartridge based on the determined remaining amount of ink and remaining storable amount of waste ink (Figures 2-4) .
- wherein said changing means (100) changes which of said remaining amount of ink and said storable amount of waste ink is to be displayed (Figures 2-4);
- display means (an arlam) for performing display on said state of use (column 6, lines 25-32);
- wherein the display on the state of use of said ink cartridge (125BK) is performed by outputting information of a content to be displayed to an externally connected host apparatus;
- wherein said changing means (100) changes whether display for prompting replacement of said ink cartridge is performed based on the remaining amount of ink or based on the storable amount of waste ink; and
- plurality of ink cartridges (125BK-125C) respectively corresponding to a plurality of inks of different colors can be attached to the apparatus.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior arts are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 USC 103 (a) as being unpatentable over Nagoshi et al. (US Pat. 4,965,596) in view of Fukazawa (US Pat. 5,113,206).

Nagoshi et al disclose the basic features of the claimed invention were stated above but do not disclose a waste ink path supplies the plurality of inks of different colors of ink cartridges to a waste ink storing member of a predetermined ink cartridge common to them.

Fukazawa discloses in Figure 2 an ink jet recording apparatus comprising a waste ink path (12) supplies the plurality of inks of different colors of ink cartridges to a waste ink storing member (1) of a predetermined ink cartridge common to them.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to incorporate the teaching of Fukazawa in the Nagoshi et al. ink jet recording apparatus for the purpose of providing a waste ink tank which can collect waste ink from printing heads with a compact design.

#### ***Citation of Pertinent Prior Art***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art references (US Pat. 5,172,140; US Pat. 5,221,935; US Pat. 6,227,661; US Pat. 6,476,926; US Pat. 6,547,363; US Pat. 6,595,616; US Pat. 6,612,683; US Pat. 6,742,887; US Pat. 6,908,182) cited in the PTO 892 form show an ink jet printing apparatus that is deemed to be relevant to the present invention. These references should be reviewed.

#### ***Allowable Subject Matter***

Claims 3 and 10 would be allowable if rewritten to include all of the limitations of the base claim and any intervening claims. These claims would be allowable because none of the prior art references of record discloses an ink jet recording apparatus comprising changing means that changes the display based on a percentage of the remaining amount of ink relative to an amount


of ink storable in an ink storing member and a percentage of the storable amount of waste ink relative to a full amount of waste ink that can be stored in a waste ink storing member so as to display the amount corresponding to the relatively smaller one of those percentages in the combination as claimed.

Claim 11 are allowed because none of the prior art references of record discloses an ink jet recording apparatus comprising control means for performing a control in such a way that the remaining amount of ink in the ink storing member of a first cartridge is displayed as the state of use of the first cartridge and the smaller one of a percentage of the remaining amount of ink in a second cartridge and an amount of waste ink that can be received in a waste ink storing member is displayed as the state of use of the second cartridge in the combination as claimed.

Claim 12 are allowed because none of the prior art references of record discloses an ink jet recording apparatus comprising means for displaying time for replacement of first and said second cartridges; and control means for performing a control in such a way that the time for replacement of the first cartridge is displayed when an amount of ink remaining in the ink storing member of the first cartridge becomes a predetermined amount and the time for replacement of the second cartridge is displayed when an amount of ink remaining in the ink storing member of the second cartridge becomes smaller than a certain amount or when an amount of waste ink that can be received in the waste ink storing member becomes equal to or smaller than a certain amount in the combination as claimed.

### **CONCLUSION**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Anh Vo whose telephone number is (571) 272-2262. The examiner can normally be reached on Tuesday to Friday from 9:00 A.M. to 7:00 P.M.. The fax number of this Group 2861 is (571) 273-8300.

  
**ANH T.N. VO**  
**PRIMARY EXAMINER**  
07/20/2005